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**United States Patent** [19]**Crome**[11] **Patent Number:** **5,871,624**[45] **Date of Patent:** **Feb. 16, 1999****[54] MODULAR CERAMIC OXYGEN GENERATOR**

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**Related U.S. Application Data**

- [63] Continuation of Ser. No. 518,646, Aug. 24, 1995, abandoned.  
[51] Int. Cl.<sup>6</sup> ..... **C25B 11/00**  
[52] U.S. Cl. .... **204/286; 204/279; 204/280; 204/281; 204/297 R; 204/288; 204/289; 204/290 R; 204/421; 204/265; 204/266; 204/277; 204/278; 204/263; 204/275; 422/120; 422/122; 429/27; 429/30; 429/31; 429/32; 429/38; 429/39; 429/40**  
[58] Field of Search ..... **204/421, 279, 204/280, 281, 286, 290 R, 290 F, 297 R, 265, 288, 289, 266, 277, 278, 263, 275; 422/120, 122; 429/27, 30, 31, 32, 38, 39, 40**

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**Primary Examiner**—Bruce F. Bell**Attorney, Agent, or Firm**—Michael H. Wallach**[57] ABSTRACT**

A ceramic oxygen generator is described which is capable of modular construction to permit the oxygen generation capacity to be expanded. An ionically conducted ceramic electrolyte is formed into a series of rows and columns of tubes on a tube support member and like electrolyte bodies can be connected together to form a manifold therebetween for oxygen produced in the interiors of the tubes. An electrical connection between tubes is formed such that the anodes and cathodes of tubes in a column are connected in parallel while the tubes in the row are, respectively, connected anode to cathode to form a series connection.

**11 Claims, 4 Drawing Sheets**